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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/671,780

09/29/2003

Kazuhiko Nagano

Q77646

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23373

7590

11/20/2006

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EXAMINER

NGUYEN, DUNG T

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/671,780

Applicant(s)

NAGANO ET AL.

Examiner

Dung (Michael) T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-18 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 5-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Wong (4730112).

With respect to claims 1 and 9-12, Gibbs shows in Fig.14 a method for stabilizing an optical output of semiconductor laser (laser diode chip), comprising the steps of:

(a) heating the semiconductor laser (16) with a heater (96) when the semiconductor laser is not in operation (column 11, lines 32-67); and

(b) performing **one of first operation stopping heating of the semiconductor laser** (column 11, lines 32-67) almost simultaneously with startup of the semiconductor laser.

With respect to claim 2, Wong discloses said heater heats a vicinity of the semiconductor laser at a heating rate which approximately corresponds to a heat-generation rate at which the semiconductor laser generates heat when the semiconductor laser is in operation, and said first

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operation is performed almost simultaneously with startup of semiconductor laser (column 11, lines 51-55 discloses that the laser diode laser 16 is brought to temp. T<sub>c</sub> which brings the wavelength of the emitted radiation. That means the heating rate is correspondent to the laser heat generation rate).

With respect to claims 5-8, Wong discloses the semiconductor laser is a multicavity semiconductor laser having a plurality of light emission points (column 5, lines 25-27).

With respect to claims 13-16, Wong shows in Fig.1 said heater 96 comprising a heater wire (connection line (as interpreted by the examiner, the connection line is a wire).

With respect to claim 17, Wong discloses in col.11, l.51-57 said first operation of stopping the heating of the laser.

With respect to claim 18, Wong discloses in col.11, l.33-40 the voltage applied to the heater is applied to alternate with application of a voltage of the laser.

***Allowable Subject Matter***

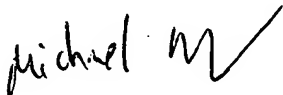
Claims 3-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Wong prior art fails to disclose the limitation as recited in the claims.

### Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung (Michael) T Nguyen whose telephone number is (571) 272-1949. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

A handwritten signature in black ink, appearing to read "Michael M." followed by a stylized checkmark or flourish.

Michael Dung Nguyen